

**WHAT IS CLAIMED IS:**

1        1.    Water filter cartridge, especially for treating  
2 drinking water in beverage machines or drinking water devices,  
3 with a replaceable control unit to monitor the condition of the  
4 water filter cartridge, characterized in that the control unit  
5 includes a sensor unit (11) with at least one conductance sensor  
6 (13, 14).

1        2.    Water filter cartridge according to Claim 1,  
2 characterized in that the conductance sensor (13) is provided to  
3 measure the conductivity of the filtered water.

1        3.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that sensor elements (13) are  
3 provided which project into the housing (2) of the filter  
4 cartridge (1).

1        4.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that at least one passage  
3 and/or at least one break point are provided for one or more  
4 sensor elements (13) to go through.

1        5.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that a conductance sensor  
3 (19) is provided to measure the quality of the unfiltered water.

1        6.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that an electronic evaluation  
3 unit (19) is provided.

1        7.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that the electronic  
3 evaluation unit (19) takes into account the difference between  
4 at least two conductance values in performing its evaluation.

1        8.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that a temperature sensor  
3 (15) is provided.

1        9.    Water filter cartridge according to one of the  
2 preceding claims, characterized in that a timing element is  
3 provided for determining the time.

1        10.   Water filter cartridge according to one of the  
2 preceding claims, characterized in that a display (16) is

3 provided for the condition of the water filter cartridge (1).

1        11. Water filter cartridge according to one of the  
2 preceding claims, characterized in that fastening elements (12)  
3 are provided to fasten the sensor unit (11) to the filter  
4 cartridge (1).

1        12. Water filter cartridge according to one of the  
2 preceding claims, characterized in that at least some of the  
3 fastening elements are catches (12).

1        13. Beverage machine or drinking water device with a  
2 drinking water treatment system, characterized in that a water  
3 filter cartridge (1) according to one of the preceding claims is  
4 provided.